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REMARKS/ARGUMENTS

Pending claims 26-54 stand rejected under 35 U.S.C. §112, ¶1 as allegedly failing to comply with the written description requirement. This rejection is no different than the prior rejection with regard to §112, ¶1. In light of the pre-appeal conference and panel decision in which prosecution was re-opened, obviously this rejection is improper. That is, by issuing a decision to re-open prosecution, the Panel necessarily decided that there were no issues to appeal with respect to the previous rejection. See Notice of Panel Decision from Pre-Appeal Brief Review, mailed November 4, 2005. For this reason alone, the §112, ¶1 rejection is improper.

The Office Action contends that the "Applicant does not specify and it is not clear what type of algorithms or methods Applicant uses." Final Office Action, p. 2. However, Applicant respectfully disagrees, as all that is needed to comply with the written description requirement is that the "specification must reasonably convey to those skilled in the art that applicant was in possession of the claimed invention as of the date of invention." Further, the claimed subject matter "need not be described literally, i.e., using the same terms, in order for the disclosure to satisfy the description requirement. Software aspects of inventions may be described functionally." MPEP §2106(V)(b)(1).

Such functional aspects are clearly present in the Specification as filed, including the algorithms and methods contended to be missing. For example, see FIGS. 3-7 and accompanying text, which show and describe functional block diagrams as well as flow charts for methods as recited by the claims. Accordingly, the rejection is improper, as one of ordinary skill would understand that Applicant was in possession of the claimed subject matter. For example, as to claim 26, the Office Action apparently contends that there is insufficient support for the claimed language of transferring pixel data to a transformation engine at a given memory address range, and readdressing the transformed pixel data to another memory address range using the transformation engine and without using a fetch engine. Clear support for this language is set forth in the Specification, for example, at p. 7, ln. 15 – p. 8, ln. 14.

As to claims 36-37 and 48-49, the Office Action contends that the claimed "second transformation" was not described in the Specification. Final Office Action, p. 3. This contention is misplaced, as multiple transformations are disclosed throughout the Specification. For example, page 5 of the Specification lists multiple transformation operations including scaling, color conversion and composition. Specification, p. 5, lns. 1 – 8. The Specification

further discloses performing a first transformation and then a second transformation. *E.g.*, Specification, p. 8, ln. 15 – p. 9, ln. 10. Further with regard to the 35 U.S.C. §112, ¶1 rejection, the Examiner asks questions. It is unclear what bearing these questions have on the analysis required by §112, ¶1, because no more is required to meet the written description obligation than Applicant provided in the Specification, and thus it is respectfully submitted that the rejection is overcome.

Claims 34, 35, and 48-54 stand rejected under 35 U.S.C. §112, ¶2 for use of the term “transfer function”. This rejection is improper given the Panel’s decision to re-open prosecution. As to claims 34 and 35, nowhere do these claims even use the language “transfer function”. Accordingly, this rejection cannot stand as to claims 34 and 35.

As to claims 48 and 50 and the claims depending therefrom, these claims clearly recite the definite scope and distinct subject matter of the claimed transfer function. As recited in claim 48, the first transfer function performs a transformation on pixel data, while similarly the claimed first transfer function of claim 50 is to perform a transformation of pixel data in a virtual memory space. This claim language is sufficiently definite and the rejection is thus improper. That is, “Applicant’s claims, interpreted in light of the disclosure must reasonably apprise a person of ordinary skill in the art of the invention. However, the Applicant need not explicitly recite in the claims every feature of the invention.” MPEP §2106(V)(a)(2). Particularly as recited in the claims and interpreted in light of the Specification, the recited language of the claimed transfer functions is sufficiently definite that one in ordinary skilled in the art is reasonably apprised of the scope of the claims. That is, when read in the light of the rest of the respective claim and the Specification, use of the term “transfer function” is definite. For example, as shown in FIG. 3 and described in the Specification, a transfer function is “to receive pixel data and addresses from the immediate port target 16, perform a pixel and address transformation, and forward output pixel data and addresses to a media port write back engine 20”. Specification, p. 5, lns. 17-22. Thus the §112, ¶2 rejection is also improper.

Pending claims 26-54 stand rejected under Homan in view of Pendse under §103(a). Applicant respectfully traverses the rejection and respectfully requests reconsideration of the same. As to claim 26, the Office Action contends that Homan teaches “transferring pixel data to a transformation engine at given memory address range”. Office Action, p. 4. However, nowhere is there support in Homan for such transfer of pixel data to a transformation engine at a

given memory address range. Instead Homan merely teaches that pixel data is provided to a texture pipeline. However, data is hardwired through the pipeline and is not transferred to an engine "at a given memory address range". Instead, as shown in Figure 2 of Homan, data is provided directly to a texture filter or texture applicator: nowhere does Homan anywhere teach or suggest such filters or applicators are "at a given memory address range". Nor does Pendse add anything in this regard. For at least this reason, the rejection is overcome.

Nor do either of the references anywhere teach or suggest readdressing transformed pixel data to another memory address range using a transformation engine and without using a fetch engine. In this regard, the Office Action points to Figure 3 of Homan for such readdressing of transformed pixel data. However, Figure 3 of Homan is not directed in any way to readdressing of transformed pixel data (i.e., after transformation in a transformation engine). Instead, Figure 3 of Homan shows texture data organization as texture data is stored prior to transformation.

As to the recitation in the Office Action of various subject matter from Applicant's Specification, Applicant respectfully notes that the Office Action is referring to portions of Applicant's Specification which describe the prior art, and accordingly disclose use of a fetch engine to obtain pixel data from memory.

Furthermore, there is no basis for combining Homan with Pendse to obtain the claimed subject matter. In this regard, the Office Action contends that somehow it is obvious to recognize a transformation engine between the cache controller and cache memory of Pendse. Office Action, p. 5. Applicant respectfully disagrees as Pendse merely teaches that memory accesses may be speeded using a cache, which itself includes a cache controller and a cache memory. Nowhere does this or any other portion of Pendse anywhere teach or suggest a transformation engine that performs transformations on pixel data. For all these reasons, the rejection of claim 26 and the claims depending therefrom is overcome. For at least the same reasons the rejection of independent claim 38 and its dependent claims is also overcome.

Dependent claims 27 and 28 are further patentable as the Office Action has made no *prima facie* case with respect to these claims.

As to dependent claim 36, nowhere can the Office Action point to any teaching in either reference for writing transformed pixel data to a second memory location associated with a second transfer function that performs a second transformation on the pixel data. In this regard, the Office Action contends that somehow data transfer operations purportedly performed in

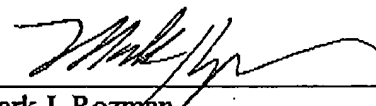
Homan meet the claimed data transformations. However, the mere transfer of data is not a transformation operation as recited in the claims. Nor does Pendse add anything in this regard as instead Pendse merely teaches a least recently used type algorithm for prefetching of data. There is no transformation of pixel data taught or suggested in Pendse. For this further reason, the rejection of claims 36 and 37 and claims 48-49 is overcome.

The rejection of independent claim 50 and the claims depending therefrom are overcome, as the Office Actions fails to set forth any teaching or suggestion in either of the references for multiple memory controller clients. Instead, the Office Action merely refers back to its analysis of claim 26, which is not directed to the same subject matter as claim 50. Accordingly, there is no *prima facie* case of obviousness with respect to claim 50, and claim 50 and the claims depending therefrom are also patentable.

In view of these remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 20-1504.

Respectfully submitted,

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